REMARKS

Claims 15-42 were previously pending in the application. Claims 15-24 and 29-34 have been withdrawn. This Amendment amends claims 15, 17, 21-29, 31, 33, 34, 37, 38, and 40-42, and canceled claims 16, 19, 30, 32, 35, and 36. Claims 18, 20, and 39 remain unchanged. Claims 15, 25, 29, and 41 are independent.

Entry of this Amendment is proper because it does not raise any new issues requiring further search by the Examiner, narrows the issues on appeal, and is believed to place the present application in condition for immediate allowance.

The Election / Restriction Requirement

Claims 15-24 and 29-34 have been withdrawn from further consideration as being drawn to a nonelected invention. Applicants respectfully traverse this requirement.

The Office Action notes that the present application is a National Stage application under PCT, and thus, unity of invention is required under PCT Rules.

Contrary to the assertions in the Office Action, Applicants submit that claims 15-24 and 29-34 satisfy the unity of invention requirements under 37 C.F.R. § 1.475(b) with claims 25-28 and 35-42. See, e.g., M.P.E.P. § 1893.03(d), 37 C.F.R. § 1.475, and 37 C.F.R. § 1.499.

M.P.E.P. § 1893.03(d) states:

> "A group of inventions is considered linked to form a single general inventive concept where there is a technical relationship among the inventions that involves at least one common or corresponding special technical feature. The expression special technical features is defined as meaning those technical features that define the contribution which each claimed invention, *considered as a whole*, makes over the prior art. [...]
>
> An apparatus or means is specifically designed for carrying out the process when the apparatus or means is suitable for carrying out the process with the technical relationship being present between the claimed apparatus or means and the claimed process. The expression specifically designed does not imply that the apparatus or means could not be used for carrying out another process, nor does it imply that the process could not be carried out using an alternative apparatus or means. [...]

> As provided in 37 CFR 1.475(b), a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: […] (4) A process and an apparatus or means specifically designed for carrying out the said process; […]."
>
> Emphasis added.

Independent claim 15 is directed to a process (namely, controlling, by the speed control device, the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, the controlling including selecting a first phase during the washing and rinsing process and intermittently generating a first control signal to the drive motor such that the drive motor accelerates the laundry drum in a first direction of rotation to a first rotational speed above an applicational rotational speed, wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7 m/s, and a second control signal to the drive motor such that the drive motor rotates the laundry drum in a second direction of rotation to a second rotational speed below the applicational rotational speed, wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s; and successively selecting, by the speed control device, a second phase during the washing and rinsing process and intermittently generating a third control signal for the drive motor such that the drive motor accelerates the laundry drum in the first direction of rotation to a third rotational speed for high washing mechanics, wherein a third circumferential speed of the laundry drum at the third rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, and a fourth control signal for the drive motor such that the drive motor accelerates the laundry drum in the second direction of rotation to a fourth rotational speed for high washing mechanics, wherein a fourth circumferential speed of the laundry drum at the fourth rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s).

Independent claim 25 is directed to an apparatus or means specifically designed for carrying out the process (namely, a washing machine comprising a laundry drum; a

drive motor intermittently driving the laundry drum during the washing and rinsing process in alternating directions of rotation; and a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, the speed control device selecting a first phase, during the washing and rinsing process, and intermittently generating a first control signal to the drive motor such that the drive motor accelerates the laundry drum in a first direction of rotation to a first rotational speed above an applicational rotational speed, wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7 m/s, and a second control signal to the drive motor such that the drive motor rotates the laundry drum in a second direction of rotation to a second rotational speed below the applicational rotational speed, wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s, and the speed control device successively selecting a second phase, during the washing and rinsing process, and intermittently generating a third control signal for the drive motor such that the drive motor accelerates the laundry drum in the first direction of rotation to a third rotational speed for high washing mechanics, wherein a third circumferential speed of the laundry drum at the third rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, and a fourth control signal for the drive motor such that the drive motor accelerates the laundry drum in the second direction of rotation to a fourth rotational speed for high washing mechanics, wherein a fourth circumferential speed of the laundry drum at the fourth rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s).

Independent claim 29 is directed to a process (namely, controlling, by the speed control device, the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, the controlling including selecting a first phase during the washing and rinsing process and intermittently generating a first control signal to the drive motor such that the drive motor accelerates the laundry drum in a first direction of rotation to a first rotational speed above an applicational rotational speed, wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7

m/s, and a second control signal to the drive motor such that the drive motor rotates the laundry drum in a second direction of rotation to a second rotational speed below the applicational rotational speed, wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s; and successively selecting, by the speed control device, a second phase during the washing and rinsing process and intermittently generating a third control signal for the drive motor such that the drive motor accelerates the laundry drum in the first direction of rotation to a third rotational speed for high washing mechanics, wherein a third circumferential speed of the laundry drum at the third rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, and a fourth control signal for the drive motor such that the drive motor accelerates the laundry drum in the second direction of rotation to a fourth rotational speed for high washing mechanics, wherein a fourth circumferential speed of the laundry drum at the fourth rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, such that individual items of laundry are compressed and rub vigorously against one another, wherein the first speed is selected such that the laundry items can fall from a drum jacket during a subsequent reduction in the drum speed, a sufficiently large free area is formed in the laundry drum as a result of compression of the laundry items, and the detached exterior laundry items are permitted to roll into the free area when the laundry drum is accelerated in the opposite direction of rotation to the second rotational speed).

As identified by underlining sections of claims 15, 25, and 29 above, Applicants submit that there is a special technical relationship among independent claims 15, 25, and 29 that involves at least one common or corresponding special technical feature.

Thus, Applicants respectfully that claims 15-24 and 29-34 satisfy the unity of invention requirements under 37 C.F.R. § 1.475(b).

Applicants respectfully submit that the Election/Restriction Requirement should be withdrawn and claims 15-24 and 29-34 rejoined under M.P.E.P. § 821.04.

The Specification Objection

The disclosure is objected as allegedly failing to provide proper antecedent basis for the claimed subject matter under 37 C.F.R. § 1.75(d)(1) and MPEP § 608.01(o).

Applicants respectfully traverse this objection.

M.P.E.P. § 2163.06 states that:

> "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter. [...] III. The claims as filed in the original specification are part of the disclosure and therefore, if an application as originally filed contains a claim disclosing material not disclosed in the remainder of the specification, the applicant may amend the specification to include the claimed subject matter."

The original claims of the original specification recite the circumferential speed of the laundry drum in m/s, as recited in the pending claims. See, e.g., original specification at pages 10-11, original claims 2, 4, and 5.

This Amendment amends the specification to incorporate the description of the circumferential speeds of the laundry drum in m/s, as recited in original claims 2, 4, and 5, into the disclosure of the specification, thereby obviating this objection. This Amendment does not add new matter since these features clearly are described in the claims of the original specification.

Applicants respectfully request withdrawal of this objection.

The Rejection under 35 U.S.C. § 112, first paragraph

The Office Action rejects claims 41 and 42 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully traverse this rejection.

M.P.E.P. § 2163.02 sets out the standard for complying with the written description requirement of 35 U.S.C. § 112, first paragraph:

> "An objective standard for determining compliance with the written description requirement is, "does the description clearly allow persons of

> ordinary skill in the art to recognize that he or she invented what is claimed. [...] to satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and that the invention, in that context, is whatever is now claimed."
>
> Whenever the issue arises, the fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. [...] An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention.

With respect to 35 U.S.C. 112, sixth paragraph limitations, M.P.E.P. § 2181(IV) states that:

> The claims must still be analyzed to determine whether there exists corresponding adequate support for such claim under 35 U.S.C. 112, first paragraph. In considering whether there is 35 U.S.C. 112, first paragraph support for the claim limitation, the examiner must consider not only the original disclosure contained in the summary and detailed description of the invention portions of the specification, but also the original claims, abstract, and drawings. [...] 37 CFR 1.75(d)(1) provides, in part, that "the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." In the situation in which the written description only implicitly or inherently sets forth the structure, materials, or acts corresponding to a means- (or step-) plus-function, and the examiner concludes that one skilled in the art would recognize what structure, materials, or acts perform the function recited in a means- (or step-) plus-function, the examiner should either: (A) <u>have the applicant clarify the record by amending the written description such that it expressly recites what structure, materials, or acts perform the function recited in the claim element</u>; or (B) state on the record what structure, materials, or acts perform the function recited in the means- (or step-) plus-function limitation. Even if the disclosure implicitly sets forth the structure, materials, or acts corresponding to a means- (or step-) plus-

> function claim element in compliance with 35 U.S.C. 112, first and second paragraphs, the USPTO may still require the applicant to amend the specification pursuant to 37 CFR 1.75(d) and MPEP § 608.01(o) to explicitly state, with reference to the terms and phrases of the claim element, what structure, materials, or acts perform the function recited in the claim element. […]" Emphasis added.

Applicants respectfully submit that the original disclosure and figures convey with reasonable clarity to those skilled in the art that the features of claims 41 and 42 were in possession of the Applicants, as of the filing date.

Claim 41 recites a washing machine comprising means for controlling the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, and generating and sending control signals to the drive motor such that the drive motor intermittently drives the laundry drum in the first phase in which the laundry drum is accelerated in the one direction of rotation to the first rotational speed of approximately 3.7 m/s and in the other direction of rotation to the second rotational speed of less than about 1.0 m/s.

The specification at page 8, lines 5-13, describes that "the specified speeds nl, n2 and n3 can be freely selected [and in] order to achieve optimum effects, fixed machine parameters must also be taken into account for the choice of speed, which are obtained from the dimensions of the laundry drum, its flooding holes, the entrainers, the scooping device and the resonance speed. The radius of the laundry drum is especially crucial when selecting the speed since the radius fundamentally determines the applicational rotational speed. Thus, the advantageous nominal values of the speeds are predefined by predefining the circumferential speed of the laundry drum."

The specification, at page 8, lines 15-36, and page 9, lines 1-5, describes "[a] washing machine comprising a speed control device for the drive motor of the laundry drum […]. The speed control device can generate control signals for the drive motor such that in the washing and/or rinsing process the laundry drum is intermittently driven in alternating directions of rotation at respectively different speeds in at least one

intensive wetting phase (A) and at least one high wash mechanics phase (B)." Emphasis added.

The specification, at page 9, lines 7-10, describes that the "explanations put forward above disclose a method and means for implementing the method which bring about a uniform washing effect very close to the optimum and within a laundry batch and a reduction in the water, washing agent and energy consumption is achieved."

When considered as a whole, the specification clearly describes the means for implementing the method as including a speed control device. See, e.g., page 8, lines 15-36, and page 9, lines 1-6.

Applicants submit that, when considered as a whole, the description clearly allows persons of ordinary skill in the art to recognize that, as of the filing date sought, the inventor was in possession of means (e.g., a speed control device) for controlling the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, and generating and sending control signals to the drive motor such that the drive motor intermittently drives the laundry drum in the first phase in which the laundry drum is accelerated in the one direction of rotation to the first rotational speed of approximately 3.7 m/s and in the other direction of rotation to the second rotational speed of less than about 1.0 m/s, as recited in claim 41. See, e.g., page 8, lines 15-36, and page 9, lines 1-6.

This Amendment amends the specification to clarify the record by amending the written description such that it expressly recites what structure, materials, or acts perform the function recited in the claim element. See, e.g., M.P.E.P. § 2181(IV).

Furthermore, contrary to the assertions in the Office Action, Applicants respectfully submit that the means-plus-function language of claims 41 and 42 is not an improper broadening of scope that encompasses subject matter outside of the scope of the original disclosure.

35 U.S.C. § 112, sixth paragraph, states that an element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the

specification and equivalents thereof. The means-plus-function recitation, by definition, covers the corresponding structure, material, or acts described in the specification and equivalents thereof, and therefore, does not improperly broaden the scope that encompasses subject matter outside of the scope of the original disclosure.

Thus, the means-plus-function language of claims 41 and 42 is not an improper broadening of scope that encompasses subject matter outside of the scope of the original disclosure.

For at least these reasons, claims 41 and 42 are supported by the original disclosure, and therefore, comply with the written description requirement. Applicants respectfully request withdrawal of this rejection.

The Rejection under 35 U.S.C. § 112, second paragraph

Claims 25-28 and 35-42 are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants respectfully traverse this rejection.

The original claims of the original specification recite the circumferential speed of the laundry drum in m/s, as recited in the pending claims. See, e.g., original specification at pages 10-11, original claims 2, 4, and 5. As explained above, this Amendment amends the specification to incorporate the description of the circumferential speeds of the laundry drum in m/s, as recited in original claims 2, 4, and 5, into the disclosure of the specification, thereby obviating this objection.

The specification, at page 8, lines 5-13, and page 9, lines 1-7, explains that:

> "the specified speeds nl, n2 and n3 can be freely selected within the limits specified by the claims. In order to achieve optimum effects, fixed machine parameters must also be taken into account for the choice of speed, which are obtained from the dimensions of the laundry drum, its flooding holes, the entrainers, the scooping device and the resonance speed. The radius of the laundry drum is especially crucial when selecting the speed since the radius fundamentally determines the applicational

> rotational speed. Thus, the advantageous nominal values of the speeds are predefined by predefining the circumferential speed of the laundry drum." Emphasis added.

Original claims 2, 4, and 5 recite that the circumferential speed of the laundry drum at the speed (n3) for high washing mechanics lies in the interval of 1.1 to 1.6 **m/s**, that the nominal value of the first speed (n1) is selected so that the items of laundry lying on the drum jacket can fall back to the interior of the drum on reducing the speed and the nominal value of the second speed (n2) can have a value at which the falling items of laundry execute a rolling movement in the drum area, and that the circumferential speed of the laundry drum at the first speed (n1) is approximately 3.7 **m/s** and at the second speed (n2) less than 1.0 **m/s**.

Applicants submit that one of ordinary skill in the art will recognize that each instance of "m/s" in the original claims is referring to meters per second. The ordinarily skilled artisan will recognize that the unit of velocity m/s is appropriate for the circumferential speed of the laundry drum.

Applicants submit that, when the specification and drawings are considered as a whole and in context of the knowledge of one of ordinary skill in the art, the ordinarily skilled artisan will recognize and understand that the specification is describing revolutions per minute of the laundry drum in each instance of "1/min," as opposed to meters per second.

For at least these reasons, claims 25-28 and 35-42 are clear and definite. Applicants respectfully request withdrawal of this rejection.

The Claimed Invention

An exemplary embodiment of the claimed invention, as recited by, for example, independent claim 25, is directed to a washing machine comprising a laundry drum; a drive motor intermittently driving the laundry drum during the washing and rinsing process in alternating directions of rotation; and a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry

drum, the speed control device selecting a first phase, during the washing and rinsing process, and intermittently generating a first control signal to the drive motor such that the drive motor accelerates the laundry drum in a first direction of rotation to a first rotational speed above an applicational rotational speed, wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7 m/s, and a second control signal to the drive motor such that the drive motor rotates the laundry drum in a second direction of rotation to a second rotational speed below the applicational rotational speed, wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s, and the speed control device successively selecting a second phase, during the washing and rinsing process, and intermittently generating a third control signal for the drive motor such that the drive motor accelerates the laundry drum in the first direction of rotation to a third rotational speed for high washing mechanics, wherein a third circumferential speed of the laundry drum at the third rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, and a fourth control signal for the drive motor such that the drive motor accelerates the laundry drum in the second direction of rotation to a fourth rotational speed for high washing mechanics, wherein a fourth circumferential speed of the laundry drum at the fourth rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s.

Independent claim 41 recites somewhat similar features.

In this manner, the claimed invention provides a washing machine that provides high wash mechanics for cleaning non-delicate laundry and good redistribution of the laundry particularly with large loads, thereby improving the uniform washing effect of a laundry batch and reducing the consumption of water, washing agent and energy. See, e.g., page 2, lines 20-29.

The Rejection under 35 U.S.C. § 102

Claims 25-28, 35-36, and 40-42 are rejected under 35 U.S.C. §102 (b) as being anticipated by the Ortega reference (EP 781881.

Applicants respectfully traverse this rejection.

The Ortega reference does not disclose a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, the speed control device selecting a first phase, during the washing and rinsing process, and intermittently generating a first control signal to the drive motor such that the drive motor accelerates the laundry drum in a first direction of rotation to a first rotational speed above an applicational rotational speed, wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7 m/s, and a second control signal to the drive motor such that the drive motor rotates the laundry drum in a second direction of rotation to a second rotational speed below the applicational rotational speed, wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s, as recited in claim 25.

Additionally, the Ortega reference does not disclose a speed control device successively selecting a second phase, during the washing and rinsing process, and intermittently generating a third control signal for the drive motor such that the drive motor accelerates the laundry drum in the first direction of rotation to a third rotational speed for high washing mechanics, wherein a third circumferential speed of the laundry drum at the third rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, and a fourth control signal for the drive motor such that the drive motor accelerates the laundry drum in the second direction of rotation to a fourth rotational speed for high washing mechanics, wherein a fourth circumferential speed of the laundry drum at the fourth rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, as recited in claim 25.

Similarly, the Ortega reference does not disclose means for controlling the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, and generating and sending control signals to the drive motor such that the drive motor intermittently drives the laundry drum in the first phase in which the laundry drum is accelerated in the one direction of rotation to the first rotational speed of approximately

3.7 m/s and in the other direction of rotation to the second rotational speed of less than about 1.0 m/s, as recited in independent claim 41.

The Ortega reference is silent with respect to a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, the speed control device selecting a first phase […] and intermittently generating a first control signal to the drive motor […] wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7 m/s, and a second control signal to the drive motor […] wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s, as recited in claim 25.

Additionally, the Ortega reference is silent with respect to a speed control device successively selecting a second phase […] and intermittently generating a third control signal for the drive motor […] wherein a third circumferential speed of the laundry drum at the third rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, and a fourth control signal for the drive motor […] wherein a fourth circumferential speed of the laundry drum at the fourth rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, as recited in claim 25.

At best, the Ortega reference describes a control device that controls the rotational speed of the drum based only on the revolutions per minute (r/min) of the drum. One of ordinary skill will recognize that the revolutions per minute of the drum are not dependent on the size (e.g., radius or circumference) of the laundry drum, which appears to be acknowledged by the Office Action at pages 10-11, bridging paragraph. In stark contrast, the present application explains that the circumferential speed in meters per second (m/s) is dependent on the radius of the laundry drum. See, e.g., page 8, lines 9-13.

For at least these reasons, the Ortega reference does not disclose a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, the speed control device selecting a first phase, during the washing and rinsing process, and intermittently generating a first control signal to the

drive motor such that the drive motor accelerates the laundry drum in a first direction of rotation to a first rotational speed above an applicational rotational speed, wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7 m/s, and a second control signal to the drive motor such that the drive motor rotates the laundry drum in a second direction of rotation to a second rotational speed below the applicational rotational speed, wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s, as recited in claim 25.

Additionally, the Ortega reference does not disclose a speed control device successively selecting a second phase, during the washing and rinsing process, and intermittently generating a third control signal for the drive motor such that the drive motor accelerates the laundry drum in the first direction of rotation to a third rotational speed for high washing mechanics, wherein a third circumferential speed of the laundry drum at the third rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, and a fourth control signal for the drive motor such that the drive motor accelerates the laundry drum in the second direction of rotation to a fourth rotational speed for high washing mechanics, wherein a fourth circumferential speed of the laundry drum at the fourth rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, as recited in claim 25.

Similarly, the Ortega reference does not disclose means for controlling the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, and generating and sending control signals to the drive motor such that the drive motor intermittently drives the laundry drum in the first phase in which the laundry drum is accelerated in the one direction of rotation to the first rotational speed of approximately 3.7 m/s and in the other direction of rotation to the second rotational speed of less than about 1.0 m/s, as recited in independent claim 41.

Claims 26-28, 35-36, 40, and 42 are patentable over the Ortega reference by virtue of their dependency from claims 25 and 41 respectively, as well as for the additional features recited therein.

Applicants respectfully request withdrawal of this rejection.

The Rejections under 35 U.S.C. § 103

Claims 25-28 and 35-42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Ortega reference.

Applicants respectfully traverse this rejection.

As explained above, the Ortega reference does not disclose a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, the speed control device selecting a first phase, during the washing and rinsing process, and intermittently generating a first control signal to the drive motor such that the drive motor accelerates the laundry drum in a first direction of rotation to a first rotational speed above an applicational rotational speed, wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7 m/s, and a second control signal to the drive motor such that the drive motor rotates the laundry drum in a second direction of rotation to a second rotational speed below the applicational rotational speed, wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s, as recited in claim 25.

Additionally, the Ortega reference does not disclose a speed control device successively selecting a second phase, during the washing and rinsing process, and intermittently generating a third control signal for the drive motor such that the drive motor accelerates the laundry drum in the first direction of rotation to a third rotational speed for high washing mechanics, wherein a third circumferential speed of the laundry drum at the third rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, and a fourth control signal for the drive motor such that the drive motor accelerates the laundry drum in the second direction of rotation to a fourth rotational speed for high washing mechanics, wherein a fourth circumferential speed of the laundry drum at the fourth rotational speed for high washing mechanics lies in an interval of about 1.1 to 1.6 m/s, as recited in claim 25.

Similarly, the Ortega reference does not disclose means for controlling the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum,

and generating and sending control signals to the drive motor such that the drive motor intermittently drives the laundry drum in the first phase in which the laundry drum is accelerated in the one direction of rotation to the first rotational speed of approximately 3.7 m/s and in the other direction of rotation to the second rotational speed of less than about 1.0 m/s, as recited in independent claim 41.

Applicants respectfully submit that the teachings of the Ortega reference also do not provide any apparent reason to one of ordinary skill in the art to modify the device of the Ortega reference to arrive at the features of claims 25 and 41.

As explained above, the Ortega reference is silent with respect the features of claims 25 and 41. The Ortega reference simply discloses a method of washing and rinsing that includes a phase of rotating the drum alternately in both directions to achieve washing mechanics, and a phase in which the drum is accelerated to a speed of 300 to 400 r/min (speed value N3). See, e.g., paras. [0023] and [0024]. The disclosed speed of 300 to 400 r/min of the Ortega reference will result in the clothes forming a tightly packed ring on the inside of the drum such that the individual items of clothing are unlikely to fall off even when the drum comes to a standstill, thereby making a redistribution of the clothes inside the drum difficult to achieve. Moreover, the Ortega reference describes only controlling the rotational speed of the drum in revolutions per minute (r/min).

In stark contrast, independent claim 25 recites that the speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, the speed control device selecting a first phase, during the washing and rinsing process, and intermittently generating a first control signal to the drive motor such that the drive motor accelerates the laundry drum in a first direction of rotation to a first rotational speed above an applicational rotational speed, wherein a first circumferential speed of the laundry drum at the first rotational speed is substantially 3.7 m/s. The rotational speed of 3.7 m/s is higher than a speed at which the laundry will adhere to the drum but not as high as the usual speed for expelling water from the clothes (e.g., as disclosed in the Ortega reference).

Independent claim 25 further recites that the speed control device selects a second phase and generates a second control signal to the drive motor such that the drive motor rotates the laundry drum in a second direction of rotation to a second rotational speed below the applicational rotational speed, wherein a second circumferential speed of the laundry drum at the second rotational speed is less than about 1.0 m/s. The rotational speed of less than about 1.0 m/s is sufficient to loosen the items of clothing and to efficiently redistribute the items of clothing inside the drum, thereby providing a redistribution of the clothes inside the drum.

The present application explains that the circumferential speed in meters per second (m/s) is dependent on the radius of the laundry drum and discloses a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum. See, e.g., page 8, lines 9-13. In stark contrast, the Ortega reference describes only controlling the rotational speed of the drum in revolutions per minute (r/min), which is not dependent on the radius of the laundry drum. The Ortega reference does not disclose, or contemplate, a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum. Moreover, the Ortega reference provides no apparent reason or motivation to provide a speed control device that controls the drive motor of the laundry drum based on a circumferential speed in m/s of the laundry drum, or that selects a first and second phase and generates control signals for rotating the laundry drum based on the circumferential speeds.

Moreover, M.P.E.P. § 2144.05 states that a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. Applicants submit that the Ortega reference does not recognize a circumferential speed in m/s of the laundry drum, and therefore, the parameter optimized was not recognized in the art to be a result-effective variable.

For at least these reasons, the Ortega reference does not render obvious the features of independent claims 25 and 41.

Claims 26-28, 35-40, and 42 are patentable over the Ortega reference by virtue of their dependency from claims 25 and 41, as well as for the additional features recited therein.

For example, contrary to the assertions in the Office Action, the Ortega reference does not disclose a speed control device that "generates the first, second, third, and fourth control signals for the drive motor based on the at least one foam formation and developing laundry imbalance established and evaluated by the device, and when at least one of a specified foam and imbalance limit is exceeded, the drive motor is switched off by the control signals," as recited in claim 26. The Ortega reference does not disclose a speed control device that "generates the first, second, third, and fourth control signals for the drive motor that vary at least one of a duration of the individual intervals, a duration of the phase, and a sequence of the first phase and the second phase of at least one of the washing and the rinsing process," as recited in claim 27. The Ortega reference does not disclose a speed control device that "generates the first, second, third, and fourth control signals for the drive motor based on the at least one of the type and the quantity of the laundry items to be treated established and evaluated by the device," as recited in claim 28.

Similarly, the Ortega reference does not disclose that the speed control device "receives the signal from the sensor and varies the first, second, third, and fourth control signals to the drive motor based on the received signal from the sensor," as recited in claim 37, "receives the signal from the sensor and varies the first, second, third, and fourth control signals to the drive motor based on the received signal from the sensor," as recited in claim 38, "receives the signal from the sensor and varies the first, second, third, and fourth control signals to the drive motor based on the received signal from the sensor," as recited in claim 39, or "receives the signal from the sensor and varies the first, second, third, and fourth control signals to the drive motor based on the received signal from the sensor," as recited in claim 40.

Contrary to the assertions in the Office Action, the Ortega reference does not disclose a speed control device that receives the signal from the sensor and varies the first, second, third, and fourth control signals as recited in claims 26-28 and 37-40.

Applicants respectfully request withdrawal of this rejection.

CONCLUSION

In view of the above, entry of the present Amendment and allowance of Claims 15, 17, 18, and 20-29, 31, 33, 34, and 37-42 are respectfully requested. If the Examiner has any questions regarding this amendment, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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July 25, 2011

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